

Task Force on Sustainable Growth and Wastewater Disposal Joint Meeting with the
Sustainable Growth Commission
September 12th, 2011

Delegate McIntosh welcomed everyone to the joint meeting of the Task Force on Sustainable Growth and Wastewater Disposal (TF) and the Maryland Sustainable Growth Commission (SGC). She introduced herself as chair of the TF and she introduced Jon Laria as vice-chair of the TF and chair of the SGC. She said that they are two groups that have been tasked with looking at growth in Maryland.

Jon Laria said that this might be the first time that this many people at one place and time have been thinking about smart growth in Maryland, which is a good sign. He thanked Delegate McIntosh, the other elected officials on both the TF and the SGC, Governor O'Malley including his administration and Secretaries of each department and their staff. He said we are on the cusp of an era of real progress. We are all coming from different backgrounds and perspectives, and he feels very optimistic that through sustained work on septic and other issues, we can really move the ball forward on policy making. He said he was particularly grateful to the SGC. The charge of the SGC and the charge of the TF overlap and commits the two groups to interaction. This is the first meeting of at least two joint meetings. Thank you for coming.

Delegate McIntosh asked for a motion to approve the TF minutes from the last meeting. The minutes were approved. We are now moving to TF workgroup (WG) progress reports. The purpose of the meeting today was so that the SGC could get an idea of where we are moving with the TF. What are the issues that have been brought to the table? What issues do we need more research on?

Secretary Hance said that at the first two meetings of the Impact of Agriculture and Agricultural Land Values Work Group (Agriculture WG) they identified issues related to past proposed legislation and how to possibly correct those issues moving forward. We will have speakers at future meetings. As the chair mentioned our WG is meeting after this general TF meeting and we have asked the speakers today to stay and speak to us separately since their work is so pertinent to our WG. Thank you.

Delegate McIntosh asked Secretary Hall to give his report.

Secretary Hall said the Where and How We Grow in Maryland Work Group (Growth WG) addressed a number of issues related to the major/minor subdivisions and how they should be defined. Also, what is the cost and impact of package plants in rural areas? These are all listed under the impediments to consensus of HB 1107. Other issues are the sizing of WWTPs and WWTP capacity in growth areas to accommodate future growth. Also, the particulars of the Critical Area, mainly the Limited Development Areas in the Critical Areas, are an issue. We formed small WGs within our WG which are talking about the barriers to smart growth, the hurdles to infill development, rural clustering issues, the ability of infrastructure to accommodate future growth, and looking at what is and isn't working with local growth controls.

Jon Laria said for the benefit of the SGC, I just wanted to point out that if you look at the written reports, we have been using HB 1107 as a benchmark and a place to start because it is concrete. The chair has asked the WGs to report on what are the impediments to a consensus, what are the recourses needed, etc. You can find more information in the written WG reports.

Delegate McIntosh asked Secretary Summers to report. Secretary Summers said that the Existing Infrastructure & Available Technologies Work Group (Infrastructure WG) is looking at the impediments to consensus of HB1107. One thing the bill would do is prohibit new major subdivisions from being served by onsite disposal systems (OSDS) so instead a new subdivision would have to be served by a community system that is maintained and operated by a controlling authority. So one of the things that our WG is looking at is what are the mechanisms for that controlling authority. We are also looking at a requirement of HB1107, that new and replacement systems have to have nitrogen removal technology, in order for that to continue to function over the long term, you need operation and maintenance (O&M), so it is necessary to have some kind of management system in place. MDE has drafted guidance on O&M that it shared with the WG and we are now looking at how that can be handled. Most of the effort now is on gathering information. We are pulling together information on local government mechanisms and shared facilities. There was a study in Howard County on the cost management of shared facilities. We are also looking at the Maryland Environmental Service and their capability as a controlling authority. We have also looked at what other States are doing with septic systems and septic system management programs; right now we have a lot of technical information out to review. We are planning on meeting after the next general TF meeting to give the WG time to absorb all the technical material.

Delegate McIntosh asked Secretary Griffin to report. Secretary Griffin gave his report for the Funding Sustainable Communities & Growth Work Group (Funding WG). He said that the Funding WG is a great WG in terms of its official and unofficial members. As far as impediments to consensus on HB1107, we noted that HB 1107 did not address funding. HB 1107's fiscal note does not estimate the amount of impacts beyond stating that they could be significant. Thus far, the WG has focused on the Bay Restoration Fund (BRF). We have focused on a variety of issues pertaining to the BRF such as can we make the fee progressive, should we earmark it for periodic inflation adjustments, and we are looking at new septic funding given recent state law. We also looked at some issues related to the TMDL and Phase II of the watershed implementation plan (WIP). We also talked about potential ways the State could assist local governments to subsidize some of those costs and ways to incentivize private capital. But most of our attention focused on the BRF. At our second meeting, there was loose agreement to focus on doubling the BRF revenue to address the roughly \$500 million dollar budget shortfall that we have for upgrading the major WWTPs. We also want to look at upgrading major/minor WWTPs. We want to look at the goals of HB 1107 and the alternative of public sewer over septic. Also rather than raising multiple fees, we have looked at just increasing the BRF. We are working on a lot of detail to share with the WG before the next meeting. MDE and DNR met with the Environmental Finance Center at the University of Maryland. MDE

contracted with the University of Maryland to do a cost study and identify financing opportunities for stormwater retrofits within communities; we want to hear some of the researchers speak on that report even if it is not completely finished. We will be having some Funding WG meetings outside of the TF to complete our work.

Delegate McIntosh said thank you. She said that there are three people on the speaking panel today that will talk about downzoning land and land value. She asked if there were any other questions. No one had any, so she asked the first presenter Elgin Perry, Ph. D. to begin.

Dr. Elgin Perry introduced himself. He said that he is a statistician and did a study looking at the effect of downzoning on land values. The study looked at four pairs of counties. For each pair of counties they compared a county that had implemented downzoning, known as a test county, with a county that did not implement downzoning, which is known as the control county. They tracked the two counties over time to see if downzoning would affect the value of the land. The basic idea was that if downzoning did affect the test county they would see a different effect in the test county than in the control county. I am a statistician, I am not an economist, if some of the results seem counterintuitive you will need to ask an economist. I have a farming background. The study report is online and the website is listed in my presentation.

He went over the slide that lists the counties that the study looked at; between the pairs of counties, the counties on the right are the downzoned (test) counties the counties on the left are the non-downzoned control counties. We collected the data from the MDP Maryland PropertyView database and applied a number of filters to try and focus on agricultural properties. In addition to applying the filters to the data, they also did data checks to try and validate the properties that should be included. In the way of analysis they took a number of approaches. One approach took the time series of property values in each county and applied a technique to smooth averages over time. They did a more sophisticated model that looked at the mathematical model of before and after control and impact to see whether downzoning had an effect on land value. The results were counterintuitive to him, so he tried different models to see if there was something he was missing, but he tried adding a nearest neighbor test and he still got the same results. I'm going to explain the basic terms used in the model, improvement status means whether or not there is a house on the property. For some reason, when we added improved properties we found that the improved property had a lower land value than unimproved properties, so we ended up doing two different analyses.

The zoning action correlates to before and after downzoning in a downzoned county. The control county is a county that has not been downzoned. The zoning action helps to assess the before and after effects of downzoning on property values in test counties vs. the property values in control counties. At the time that the study was completed, property values were increasing. We now know that they can also decrease. The larger the property is the lower the cost per acre. This is the law of diminution, which is a complicated way of saying things are cheaper by the dozen. Dependent variables mean the variables that we are trying to predict with the model. There are several different

types of variables, we used logarithm of the adjustment consideration, divided by the number of acres. We do all of our analyses in logarithm transformations.

Now I am going to show you some results. These results are for unimproved properties. On the x-axis we have time. On the y-axis we have property value on a logarithm scale. Each black dot on the graph represents a property and the value. The red line tracks the property values over time, which went up in the downzoned county. The green line represents the control county. When we compare the green and red lines, we see that the downzoned county's property value is actually a little higher. The vertical black line shows when the downzoning took place.

Dr. Kelton Clark asked what the time period of the graph was. Jon Laria said that the downzoning occurred in 1996. Dr. Elgin Perry said the time period of the graph is the years 1980-2005.

He showed an analysis using the same data that estimates the average land value in each county before and after downzoning. The numbers correspond to Dorchester County, which was a test county, before and after downzoning and Somerset County, which was a control county, before and after downzoning. The difference between them is a positive number. From before and after downzoning there was a bigger negative effect in the control county vs. the downzoned county. He then showed a new graph where the red line represented the downzoned county and the green line represented Somerset, the control county. At the black line there was a slight shift downward and since then it has been increasing slightly. The control county took a larger step down and then continued to increase as well. We ran the same studies on the other pairs of counties and came to the same sets of the results for those different counties.

We compared Calvert County vs. Charles County. After downzoning we saw more of a response from Calvert County, but both counties take a negative slope and it is hard to say if the decrease in property values was due to downzoning. We looked at before and after downzoning and averaged things over a longer period of time we see that Calvert County sees an increase in property value after downzoning, whereas, the control county saw a decrease in property value, the difference was statistically significant. Now we will compare Queen Anne's County to Talbot County; there was no appreciable difference between the test county and the control county. One other point is that when we look at large parcels of land, meaning parcels larger than 20 acres, we don't see the effect of downzoning in rural areas of a county, but there is an effect of diminishing marginal return that says that the smaller the parcel the larger the cost per acre. That effect is very operative in land values.

Once you accept the law of diminishing marginal utility, the conclusion that a divided property will sell for greater total revenue than an undivided property is inevitable. If you take a large plot of land and sell it where you can not divide it in smaller parcels and sell it where you can divide it to smaller parcels there is not a depreciable effect. The only reasoning I have for this is that the marketplace reserves the premium for those that actually divide the parcels. Our conclusion is that there is no measurable decrease in large

parcel value due to downzoning in a rural market and that does not mean that divided properties do not sell for greater market value than whole properties. He then cited that there were other studies that have been done in Maryland by Dr. Lynch and another one by Fitz Turner that seem to support his results. That is the end of my presentation. I believe Russ Brinsfield would like to make some remarks.

Russ Brinsfield said obviously the study generated a lot of interest and controversy. As a result of the study's findings we received suggestions on what to change if we do the study again. We have initiated a second downzoning study, there were questions from the peer review panel, and in the packet next to each question from the peer review we have listed how the new study will respond to those questions. But, it is critical to note that no one has challenged the final results of the study and we stand by the results. Lastly, there was a scholarly misconduct lawsuit filed. The committee of legal council at the University of Maryland said that there was no significant evidence of scholarly misconduct. The committee recommended that no formal investigation be initiated.

Sam Parker asked did you look at a market that had more intense development pressure where the values of the properties in the developing areas were higher, such as, Calvert County or Charles County for example. Prince George's County also used to have much more intense development pressure. Would that have an effect on skewing or changing your results?

Dr. Elgin Perry said this is just my opinion but I believe it would. When a developer goes to buy a property he is competing with others that want to use it for agricultural land. He only has to pay what he has to pay. If the developer was in a market with more development competition, then he would have to pay more.

Senator Brinkley said I noticed that you just referenced a litmus test which is a logical function of was there a downzoning or not? It is pretty black and white. Is that correct?

Dr. Elgin Perry said yes, that is correct.

Senator Brinkley asked did you have a further discussion of what the differences of zoning are in each county. Agricultural zoning in one county can mean something else in a different county. In my county there is agricultural zoning and conservation zoning, conservation is more restrictive zoning. If a county says we are changing some of our zoning restrictions on an agricultural basis, is there a mechanism to link the same land use or development densities on that basis?

Dr. Elgin Perry said that there is a peer review that lists a number of issues to address. In my opinion they missed the bar that you just struck, and that is the fact that this is an observational study. You have to work with the experiment that has been provided to you and there are flaws in that experiment. If we were doing an ideal experiment we would go out and buy numerous properties now then randomly split them into control and experiment properties, in the experimental group we would put in easements and restrict the development per acre, then we would resell those properties so all of the factors could

remain the same. Then we would do a comparison of what the market would pay us for both sets of properties. But realistically, we aren't going to see one of those experiments. So yes, we are trying to work with observational data, and yes the fact that before we started one county did a downzoning and the other didn't downzone could point to other underlying motivations that might affect the data.

Senator Brinkley said so is it possible that one county could have downzoned to the same level of what the other county already permitted? Also, I know that sometimes one particular transaction can skew the numbers. For example, I thought that there was a major transaction between the state and the county on a timber company which was thousands of acres, would that skew the study?

Dr. Elgin Perry said that all the downzoning actual numbers and densities are in the report. In regards to that particular transaction, any property transaction that involved more than one parcel of land or one fee paid for multiple parcels was excluded from the study. That particular transaction was excluded because it was a multiple property transaction.

Senator Brinkley said I can understand your methodology for that, but an appraiser would not be excluded from considering that and might want to consider it. Dr. Elgin Perry said that is true.

Greg Bowen said I appreciate the study and the difficulty of doing the analysis. I used to work for Calvert County and when we were looking at these issues, we discovered that there are so many other factors that influence land value, i.e., road access, waterfront property, neighboring land uses, etc. It is a very complex thing; you could just study any of those factors individually. I think that the conclusion would be the same, that downzoning is just one of the many factors that affect property value. Did you find that any of the other factors made your study more difficult?

Dr. Elgin Perry said yes, in our exclusion criteria we tried to target inland agricultural properties. We excluded anything in the Critical Area and anything with an easement, but when exploring outliers we still sometimes found properties with a high value and discovered it was some waterfront property that had not been coded right, then I would exclude it. Again, it's an observational study so there are some inherent difficulties.

Alan Girard said you mentioned that it is rare to find other studies that don't do logarithms, and that there are other studies that have addressed these issues in Maryland. Are these other studies consistent with your findings? Dr. Elgin Perry said this is not a field I read regularly, I'm going to defer the question to Dr. Lynch who is speaking later.

Calvin Ball said have you considered, given the concerns with the various variables, shrinking the sample size and just taking a small handful from each county and then expanding it? Drilling down the sample size might produce a much richer picture.

Dr. Elgin Perry said that if the data was available I would consider that. But the sample sizes were small enough that the margin of error was still in the 20%-30% range, if we had made it smaller it might have gone up to 50% if the data have been there it would be a logical way to proceed.

Jon Laria said that he is trying to understand the study, and compare it to other studies that have been mentioned. Can you elaborate on the downzoning II study? Dr. Elgin Perry said we are planning a downzoning II study, the peer review comments on this downzoning study have been given to you along with our plans on how to address those concerns in the downzoning II study. Jon Laria asked what is the status is of downzoning II and how it will be different than this study. Russ Brinsfield said that the study is in progress, and it is to be completed in December. Dr. Elgin Perry said that the model will be expanded; it will include new model types. We are trying to build factors into the model to take care of the other variables.

Jon Laria asked in view of the limitations you acknowledged, how strongly do you feel the study is correct vs. as correct as it can be considering the circumstances? Dr. Elgin Perry said the fact that we looked at not just one analysis, but four pairs of counties and got the same results, that makes me feel comfortable with the results.

Jon Laria said thank you. The reason I am trying to get to the bottom of all of this is that the effect of what we are doing here might have an enormous impact on agricultural land values on the agricultural land owners of an entire constituency, so I want to make sure we are getting the best possible information. So I am glad to hear that you think that this is good data. Dr. Elgin Perry said he grew up on a farm and had his own ideas about downzoning; this study has changed his mind.

Delegate McIntosh asked if there were any other questions. Hearing none, she asked the second presenter to begin.

Kenneth Bounds said that he would like to make some comments regarding the study that Dr. Perry just spoke about. First, I want you to know a little about my background. I have worked in the farm credit system for 34 years. We are the largest agricultural lender in the country. Locally we are organized as Mid-Atlantic farm credit, we have 10,000 members locally. We are structured as a cooperative, where the farmers own the cooperative and we pay our profits back to the farmers.

Delegate McIntosh asked if his organization is chartered like other banks or credit unions. Kenneth Bounds said that they are a government sponsored enterprise (GSE), the first GSE created by Congress in 1916. We are well capitalized, our bonds are self-insured and we have good credit quality and earnings. I'll start with this disclaimer, we were worried about making comments here because we were worried that we could be perceived as a collateral lender and we don't want to be perceived that way. I don't want anyone in the media to take a part of my testimony and portray us that way. Our primary basis for loan approval is a sound business plan that allows a good management team to repay the debt with a margin for adversity. That said, there are many statutory items

revolving around collateral. I wanted to comment on the Agro-Ecology study that Dr. Perry spoke about and the study done by Fitz Turner. The peer review of the agro-ecology study was pretty vicious. It called the study more of a political doctrine rather than a research document. I don't accuse anyone of any malfeasance, it is difficult to look at property sales and try to make adjustments. I used to appraise and we did sales studies every year. When we first started doing easement sales we looked at properties that had been sold with easements versus the other sales. We always saw a property value reduction of 20%-30%. In Dr. Perry's study the error rate was 20 %, what if your property is on the outside of that average rate? Then it will affect you. The work here is very impactful on landowners, I happen to be a farm owner in Dorchester County, it would impact me directly. If two parcels were for sale at the same time and one farm had the right to divide and the other did not, would you pay the same price for each? I don't think many people here could say yes to that. I've seen some of the studies mentioned by earlier presenters and put forth as proof that downzoning does not affect property values. The Turner study did not adjust for any improvements, those things are critically important to the analysis. One of the sales, for example, had a half-million dollar grain complex on it. It just proves that it is hard to take everything into consideration in one study. I think everyone in this room wants the same thing, we all want to protect agricultural land, but this is a taking of a right away from a property owner without compensation. It is a great concern.

I am going to read this point about cash flow because I want to make sure I get it right. "From a lending perspective, and looking at the ability to obtain credit, lowered land values will have the greatest effect on two groups of landowners: one, young and beginning farmers, who typically have less equity in their farms to begin with; and two, farmers in extreme circumstances (illness, divorce, natural disaster). Equity is what gives people the ability to bear unforeseen risks, and a reduction of equity can impact them. For the vast majority of borrowers with already strong balance sheets and successful business plans, we do not feel that a reduction of equity will immediately impact their ability to get credit."

"We are not and never have been a collateral based lender; our decisions are based primarily on the strength of the income statement, along with strong management and a successful business plan. That said, it should be made clear that there are statutory requirements for collateral that must be met after a positive assessment of the farm operation and its financial condition is made. Our credit experts feel that the impact of this bill on the balance sheets of Maryland farmers and rural land owners could be significant. Most of a farmer's/land owner's equity is in their land and typically not in cash or other liquid assets. That equity is hard-earned: the land provides a base for investing in conservation programs, it allows a farmer/land owner to pass equity on to the next generation, it allows them a fallback if there is a large need for cash such as a medical emergency, and it can help to fund retirement, planned or otherwise. Farmers rely on the security that their land provides. If this bill is approved, the value of agricultural land will be permanently affected and fewer options will be available to the farmer/land owner. As part of our mission to serve agriculture, we have made use of many tools to help farmers who are in extreme circumstances (these are certainly the

minority of farmers, but our commitment is to all farmers, including those in extreme circumstances). These tools include loan note guarantees, participation with other lenders such as Farm Service Agency and MARBIDCO, crop insurance, etc.”

I am going to stop reading and make a personal comment as a landowner, I would like to see us increase the BRF to help counties meet their WIP goals and reduce nitrogen to the Bay. I'd like to see us require that all new and updated septic systems have BAT. Putting landowners and the core of the Maryland rural economy under a statewide zoning plan is not the way to reach our Chesapeake Bay cleanup goals.

Secondly, there have been some questions on how credit decisions are made. I have a handout which talks about the basic five C's of credit. I want to try to explain how we make a credit determination. The first one is character, do they have integrity, have they done the work necessary to make their business successful?. Capacity is the ability of the borrower to repay the loan and is most important of all the factors. Capital refers to the capital assets of the business, such as the net worth of the business. Collateral is the assets a borrower pledges to secure a loan. There is a difference between long and short-term loans in terms of collateral requirements. Congress put some statutory requirements on long-term loans, which are loans that are over ten years. Farmers usually use equity in their land to expand when they are ready to buy other property. The farmers typically have equity in their land and that equity can be used as a basis to borrow long term money and fund the next generation of farmers that come in. Conditions refer to the large economic or regulatory environment within which a new business will operate, such as the overall economic conditions that could put growers at risk. We look at conditions within an industry and also what conditions of approval might be needed to make a credit an acceptable credit risk. That hopefully will answer some of the questions on how we make a credit decision.

Delegate McIntosh asked if this handout is the basis for your decision. Kenneth Bounds said yes, in a general descriptive way. Delegate McIntosh asked if he could point out to her the number of subdivisions that would be allowed per parcel?

Kenneth Bounds said when appraisers go out to appraise the property, they reflect that in their appraisal values. We take the appraisal value and do a pro forma financial analysis based on that value. We also analyze if the appraised value is sufficient to meet collateral needs of the loan. Again, we are a cash flow lender and the analysis of collateral comes only after we have determined that there is a successful business plan, strong cash flow and high likelihood of success.

Jon Laria said that I just want to clarify, when you are underwriting, you are looking at two things: 1. What is the cash flow from the business and 2. What is the collateral. Presumably the collateral is based on the agricultural operations, so does the value of the development value of the land go into the collateral? Presumably the collateral is the backup plan to sell the land.

Kenneth Bounds said we certainly don't want to leave the impression that we base our lending decision on the sale of land. It is true that collateral is a secondary source of repayment but only after all efforts to restore repayment have been exhausted. Regarding development rights and how they are reflected in the collateral value, the appraisers reflect the rights in the appraisal by looking at similar properties that have sold and using those as comparable sales.

Jon Laria said I'm somewhat familiar with a real estate appraisal, but not an agricultural land appraisal. How does the highest and best use analysis factor into the underwriting and lending for the piece of property?

Kenneth Bounds said you would probably have to ask a state certified appraiser to get the best answer to this question. Our appraisers do a highest and best use analysis, and honestly it is a hybrid type of appraisal. When we were in the middle of the big development boom, some of those values were reflected in farms. We would see farms that were affected, but not at a full build out development potential. If the appraisal looks inappropriate we can throw it out.

Jon Laria said is the idea that that the value of the appraisal is not just the value for agriculture or just that value of dividing it up into plots for small houses, but the appraisal value is somewhere in between those two?

Kenneth Bounds said that there are three approaches: a sales approach, an income approach capitalizing the potential income from it, and a cost approach is the replacement cost to buy it new. It's a hybrid primarily based on sales that the appraiser can find that have been affected by the immediate area.

Jon Laria said he would like to follow up later on the potential distinction between the value for lending and the value for cashing out. Kenneth Bounds said yes there might be a difference in the two approaches but it is not risk free to do a subdivision and there are many costs that have to be factored into subdividing a property – it is not all profit and those costs get reflected in a potential buyers offer on a property.

Senator Brinkley said we have a document in front of us that summarizes the effects of downzoning on land values. It says that lenders do not consider zoning and downzoning directly when making a decision, I would assert that that is misleading. Collateral is a key factor, as stated in your other handout and it affects the underlying value of the asset, especially in light of the federal charter that Farm Credit has. If a change is made and if there is a decrease in equity because of that, who bears the burden because of it? Is it the land owner?

Kenneth Bounds said yes, it is the landowner that bears the burden if there is a decrease in equity. If we have a good person and a good business plan we are going to find a way to get the answer of the loan to yes. Is there likely to be a higher interest rate as a result? Probably so, yes.

Senator Brinkley said if that equity then decreases beneath the 15% threshold, is there a trigger mechanism, is it incumbent on them to tell you, do you consider that?

Kenneth Bounds said there is not an automatic trigger mechanism but if we analyzed the credit and found insufficient collateral, we would have to set up a specific allowance against a credit on the books. We would continue to do business with the borrower and lend money as long as the repayment ability remained strong and over time the earnings would allow them to get the equity back up. The very target groups that we want to see get back in farming, like young farmers, it would affect them the most and leverages them tremendously. They would have less equity than before and it takes years for them to get over it.

Senator Brinkley said in the past that equity had been the source to pay the bill, but now that wouldn't be there.

Kenneth Bounds said that there are statutory collateral requirements for long term loans and if we get close to that number we have to do something about it, possibly say no to the loan or seek a government guarantee to allow us to lend more. I do want to point out that you might be referring to our comments in a MDP document that is in your packet. When MDP interviewed our staff, we were so concerned about not giving the impression that we were collateral lenders that we talked about cash flow a lot and were not clear on our collateral requirements. Certainly some of the things like zoning and downzoning do get reflected back in the appraised value.

Senator Brinkley said I appreciate you taking ownership of that, but the fact is, is that the document is still out there and parts of the documents validity are questionable.

Dave Goshorn said do you have evidence on the value of land that stays as agriculture (land with full rights) vs. the value of land that formally was agriculture that has been developed?

Kenneth Bounds said we may have some data on that, our appraisers conduct sales studies and analyze all aspects of each property.

Dave Goshorn said I'm assuming some of the value of the land is due to its rural character, so do you have information on the adjoining farm parcels? Does the appraisal value of a parcel go down once an adjoining parcel has been developed? Kenneth Bounds said I am not sure.

Don Halligan asked what percentage of the loans made to farmers for operations in the Maryland market are your organizations. Kenneth Bounds said it is a really high number. The rate in some counties, such as Caroline and Dorchester, is around 70%, but I don't have the number statewide. Other companies do loans in Maryland, as well as other Farm Credit Associations in southern and western Maryland. Our overall market share is high.

Brigid Kenney said that when Russ Brinsfield talked about the peer review remarks of the Agro-Ecology study, he said some of the remarks were critical, but the overall study findings still stand. At the beginning of your comments, you said that the peer review comments eviscerated the reports. I was reading the comments and I don't see where the study was eviscerated, can you expand on that? Kenneth Bounds said I don't have that document in front of me, do you have the actual peer review or a summary? If you look at the peer review, it actually says in there that it is more of an advocacy piece than a study. Brigid Kenney said yes, I saw that comment in the document, but I can't see that it was eviscerated. Kenneth Bounds said I can get you a copy of the comments, the study was discredited, maybe eviscerated was not the right word. I just want to be clear that I have the greatest respect for those that did the study, it's a complex issue and very hard to make the judgments on this, but the peer review says that the study is not accurate. Brigid Kenney said as I read the peer review, it highlights the limitations of the data, but the data were based on real sales numbers. You have graciously acknowledged that eviscerated might be too strong of a word. Kenneth Bounds said yes, but as a practical matter, when I get the appraisal and look at does downzoning show an impact, the answer is yes it usually does. If you are taking away a right to develop the property then there is an impact. There are problems with all studies of zoning and downzoning and there are easy mistakes to be made in manipulating the data. Anybody outside of the average in Dr. Perry's trend line will feel the impact.

John Dillman said that we are seeing a change in the nature of our agricultural land, our farmland is becoming more productive while the overall acreage of farmland is decreasing. We are seeing greater competition for our larger farms nationally and internationally, we are certainly advocating for some of those changes. When you look at all that especially in light of the economy growth nationally, I'm under the impression that when lenders are looking at those issues they are taking those things into consideration, but I have not heard that expressed today.

Kenneth Bounds said his organization, because they are owned and controlled by farmers, is advocating for agriculture. They try to make people see that together we can figure out how to have a clean environment and economically viable agriculture. Locally grown foods are great for local markets, but we also have to feed the world. At the USDA Agriculture Outlook Conference this past winter, Bill Clinton said that the population is growing and we need to step up with agriculture, can we keep up with the demand? We are going to be challenged, but people are smart. We have taken a lot of steps to increase yield, but we are reaching a point in the future, when we will reach 9 billion people as projected, to where we need food for people that can't afford just locally grown foods. We need to find a way to have both. The next generation of farmers needs to transition into the business, 2% of farmers feed 98% of people.

Secretary Hall said we appreciate your broad experience. Can you name a county that did a downing where it specifically affected the amount of loans your organization gave to farms in that county? Kenneth Bounds said he never looked at the number of loans affected by a downzoning from a county standpoint before. We look at individual loan requests, I don't know if we have the ability to go back and look at that or not. To my

knowledge we have not done that analysis. Our staff appraiser tells me that downzoning affects property value and it is reflected in her appraisals and appraisals that we get from outside appraisers.

David Carey said I understand what the statistics show, but it may be helpful to get an idea of how human behavior supports the idea that downzoning does not affect property values, it seems a little counterintuitive, but why is that?

Rob Etgen said I have read all the research and there are dramatic differences in perception on this issue. To go back to the point that Kenny Bounds started with, if there are two properties and one has been downzoned and the other has not been downzoned you would buy the property that has not been downzoned. The difference is that the research isn't looking at that question and I don't think that is a real example. We have rural zoning that applies around the county. That is the key fundamental difference, when you look at land across a large area, the values tend to level out. I think that the downzoning II study is looking at the point Kenny raised of whether land adjacent to each other where one has been downzoned and the other has not, has a difference in value. If we look at the property values in a market or zoning areas, the values are consistent, most farmers aren't able to leave the region, so in the real world we just don't see the example that Kenny brought up. It is a perception. My question for you Kenny is that you talked about "takings" in the beginning, did you mean that in a legal sense? Kenneth Bounds said no. Rob Etgen said I would just caution that a taking in the legal sense is a very loaded term. A taking, in the legal/constitutional sense, is a very different conversation than the conversation that we are having today.

Senator Brinkley asked if they took TDRs into account on the balance sheet? Kenneth Bounds said that it gets reflected by the appraiser. Also, we have had cases where we used TDRs in a situation where the borrower had extreme losses to help them restore profitability. We used proceeds from the sale of TDRs to restructure his debt. You typically can't restructure a second time, however, so management has to make sure they manage their risks carefully. In the example I used, the farmer sold the TDRs and reduced the debt and cash flow was restored.

Delegate McIntosh thanked Kenneth Bounds and asked the next presenter, Dr. Lori Lynch, a professor at the University of Maryland, to proceed. Dr. Lori Lynch said that she is going to present three studies today. Most of the work is jointly completed and it has received a lot of support for the series of work we have done from a lot of different sources. It is unbelievable how much more we can look at in the state of Maryland because our State agencies collect such detailed and useful data. Land values is like a bundle of sticks, you can remove a stick and still leave ownership in the same hands. That is what we look at when we look at easements. Downzoning is decreasing the amount of houses available per acres. There is some easement research that we did in 2001 where we found that having an easement restriction on your property had very little effect on your land value. As an economist that seemed very counterintuitive to me. So we did more research. The second set of studies we looked at when we had more easements on parcels sold around the State that were sold to another person in a private

arms length transactions. Other studies also found insignificant results unless a number of restrictions were added. Most restrictions imposed in Maryland are negative restrictions. The restrictions found in the study by other parties is where there are restrictions on what is permitted, we have the reverse type of restrictions in Maryland. Another study, conducted in 2007 found no impact on land values in Baltimore County. We looked at agricultural sales that were in close proximity to each other. The average non-preserved farm sold at the highest rate. Farmland with parcels that have easements decreased from 4%-24%. The average preserved farm per acre price sells for less. So it is clear that eased property sells for less, but that is not because of the easement, it is due to other characteristics. Preserved parcels' land values are less than non-preserved parcels, but if you compare unrestricted parcels that are located near restricted parcels, they tended to sell for the same price. We went back and compared only restricted to non-restricted parcels in 1 km range. Once you take that into account, what we found was a 4% difference. A 4% difference is not very strong from a statistical perspective.

We did another study, to figure out what was affecting our land values. We looked at what was the percent of preservation within a 1 km range around the preserved parcel and what was the percent of preservation in the 5 km range around the preserved parcel. If you don't look at proximity, you get a 17.5% difference in price which equates to about 915 dollars. So land values of properties with easements decrease about 915 dollars. When you look at whether or not they have a lot of preservation around them, houses with easements and a lot of preservation within one km around them reflect a 14% difference. When we looked at the five km range of the same properties there was a 15.8% decrease of 660-825 dollars per parcel. We then looked at the impact on land with no structures, meaning that you could not use the house for residential use. We think that the easements are the strongest on these pieces of land. We have fewer observations in this case. We only have 98 eased properties that have no ability to have a house. However we do find that the impact on land values is greater. In the base case, we found a 23.6% decrease which was more than 1,000 dollars. When we used the same unimproved properties and looked at other preserved parcels in the 1km range it decreased land values 18.8%, in the 5 km it decreased land values 20.7% (983-1082 dollars).

What we conclude from the two studies is that preserved parcels with easements do sell for about 15%-24% less than similar parcels without easement restrictions. This is affected by the degree of preservation in the neighborhood. Then we wondered, why is it so little? On average the land values decreased 660 dollars an acre. Easement payments at that time were 2,700 dollars an acre. So these land owners could still sell property and come out a net of 2,000 dollars ahead. Does this make sense? Maybe the homeowners are going after the restricted parcels, which seems to be what is happening. There is a smaller decrease in price when there is a home on the property. The discount is larger with parcels that cannot be used for residential purposes.

Jon Laria asked Dr. Lynch to clarify how the decrease in value was not related to the easement, but was related to other factors? Dr. Lori Lynch said that the parcels that voluntarily enter into the agricultural easement program have a lower value in the

beginning. They tend to not have a bigger development value. One caveat is that to be part of the study sample, you had to sell the land to an unrelated individual. That does not happen as much. These are the market observations that we were able to find and they show a very different value than the appraised values.

I'm now moving onto the downzoning study. What took into account a lot of what the peer review on the Agro-Ecology study suggested. We approached it with the goal of incorporating as much information about each parcel as we could. We also matched each parcel with as similar a parcel as possible. We looked at the probability of being downzoned and matched the parcel with similar propensities to be downzoned. We also wanted to take into account that downzoning is a public process. People talk to their elected officials and the line that is initially proposed to be downzoned can be changed. One thing we are trying to take into account is that maybe people who would be impacted by downzoning don't get downzoned because of politics. This is a very different study than the easement study, these are not voluntary entrants. This study looks at a regional area of what can be downzoned. We also split the parcels into resource parcels and non-resource parcels. Previous downzoning studies have been all over the map. These are studies that have gone on since 1985, some show that land values can actually go up when you downzone. The statistics we looked at were 1,325 downzoned parcels, 3,600 non-downzoned parcels. The average market value is \$12,000 for non-downzoned, and \$7,000 for downzoned, so if just look at what the properties sold for, it seems like downzoned parcels sell for a lot less, until you add the other characteristics. We also looked at the difference between residential and resource parcels. The difference in land values are much closer together.

What affects your probability of being downzoned? Larger parcels, high per capita income, higher percentage of forest use since 1973 compared to crop use, and soil characteristics in terms of moderate to rapid permeability were all factors that contributed to your probability of being downzoned. Factors that decreased your probability of being downzoned were more people, older populations, being served by public water, low runoff potential, and being further from Salisbury. The result was that the non-downzoned parcels were \$11,955 on average. We find, when looking at the full sample, that there is no impact. Looking at the residential parcels in the downzoned area we saw a 23% decrease in value. We also looked at geographically close parcels to figure out if there are different land markets on the Eastern Shore. We looked at the downzoned parcels and ones that were geographically close to it. What was the impact? We found both no impact and a negative impact. By differentiating we found that those that were being taxed at the full market value had a 23% decrease.

In this case, we lost a lot of observations. There was no guarantee that you find a parcel within 1 km to match the restrictions of the study. Here is some of the data, we used parcels of 3 acres or more, we looked at minimum lot size and density, and zoning changes. We wanted to see if different changes in density had different impacts, but it was so complicated that we couldn't figure out a way to do it systematically. We used property view data from 2005. We looked at two land use variables, one from 1973 which was before downzoning, the other was from 2002 which is after the downzoning.

In terms of data cleaning, for zoning we kept all of the parcels from 1990- 2005, for preservation we kept all of the parcels from 1997-2003. We only kept parcels with some development potential left, and land values between \$300,000-\$100,000. We kept land that had development capacity before downzoning. We got rid of the waterfront properties, because it was too hard to impact how the critical area regulations impacted them. In terms of our conclusion, we realize that a lot of people believe that if you decrease density the land value should go down. We had to determine why that doesn't happen. Are the density requirements binding? Are the parcels developable? Zoning regulation, as it currently stands, is not the highest and best use. Does downzoning provide some benefits for the owner of the parcel? Does downzoning signal to others that this is going to be open space forever and ever? Therefore increasing the demand of people who want to buy open space properties. In conclusion, we stand by the results of our study and have seen similar results in other studies.

Senator Brinkley said that the one chart indicated a 23% reduction in devaluation for a certain use, which I interpreted to mean a residential use. Dr. Lori Lynch said that they didn't separate it out exactly like that. It is not homestead tax credit. This does not apply to the one acre plot, because we did not include any property that was less than 3 acres in the study and you had to be able to build another house on the property. Senator Brinkley said ok, so the original intent behind this group is that the Governor's proposal was to eliminate any septic use in five or greater subdivisions. What I see from this chart is that those properties would be very impacted. If I have a piece of ground where I could put 6 or 7 lots, I'm going to be hurt by 23% devaluation on those properties in which I could put a house, is that right? Dr. Lori Lynch said yes, but you're talking about a slightly different animal. This was a 23% decrease in the value of property that was not being used for agriculture or forest. Senator Brinkley said but if we take that information and extrapolate it and take a piece of ground on which the individual was going to put 6 septic systems and now they are only putting 4 septic systems, there is an inverse impact and I would submit that it is significant. Dr. Lori Lynch said if you are starting from a position where you are not using the land for agriculture or forest, then yes you would take a hit. Whether you could translate that 23% directly is another story.

C.R. Bailey said that the downzoning study considered only the 9 counties on the Eastern Shore. How are those values distinguished from the rest of Maryland where there could be more pressure to develop due to the proximity to employment bases that could distinguish those values? I am also concerned that the data did not take into account land values after 2005. Even if something was downzoned in late the 1990s, early 2000s, those parcels were beneficiaries of rising land values. 2005 was the peak of what developers are willing to pay for lots and it has gone down since then. I'd be curious to see what values you have in those subsequent years.

Dr. Lori Lynch said we couldn't figure out how to get the yields out of the parcels. If there are counties that could provide that information to us, we would be more than happy to do a further study on the degree to which the change in density matters. We have a fairly steep increase in land values through 2007 that is where we see the peak.

C.R. Bailey said that he thinks the contributing factor to that point is that the settlements that you saw in 2007, would be a reflection of contracts written in 2005. Dr. Lori Lynch said, so you think there would be more of an impact since the decrease in land values occurred? C.R. Bailey said yes, I think that there would be a bigger impact on the seller because the land value is affected by the prices coming down and developers and builders can only afford to pay what the market will bear for the end product. Therefore the price of the lots has come down and the landowner is not receiving an increase in land value. Dr. Lori Lynch said but then that seems like the downzoned and non-downzoned parcels would have a more similar impact. C.R. Bailey said if something is downzoned 50%, I find it hard to believe that the seller is still going to receive the same value if fewer lots can come out of the parcel. Dr. Lori Lynch said that is why I tried to present the reasons why land value could possibly be affected by other factors. I don't doubt your logic, intuitively it seems that downzoning should decrease parcel values, but that is not what we found.

Delegate McIntosh said thank you. The presenters have agreed to stay for the TF meeting so you can ask further questions there. She asked Joe Tassone to begin his presentation. Joe Tassone said that MDP does have information about other sources if anyone would like it. We have sales data information from three pairs of counties. In each pair, one county has relatively restrictive zoning and other has non restrictive zoning. One example is Baltimore County vs. Harford County. In Baltimore County the zoning is restrictive, in Harford County it is permissive. When you just look at the land value for the two counties the properties in Baltimore County are selling for more than the properties in Harford County. A lot of factors go into this as illustrated by the studies you just heard. The next pair is Worcester County vs. Wicomico County. Worcester County has more restrictive zoning, Wicomico County has less restrictive zoning. If you compare the mean cost per acre Worcester is higher, if you compare the median cost per acre Wicomico's is higher. The next pair is Kent County vs. Queen Anne's County. Kent County has more restrictive zoning, Queen Anne's County has more permissive zoning. Here again we have a flip depending on whether you look at the median vs. the mean. If you are trying to make sense of all this data, the concerns of farmers and landowners are legitimate. The studies provide a lot of data by which to examine the issue, those are the kinds of comparisons you heard about today. The indications of most studies are that there is little or no decrease in land value due to downzoning, but the studies do not reflect the real world concern of landowners and the lot rights. They don't make intuitive sense to a lot of people. An important thing to talk about is that the number of lots does not equal a market demand. Where there is a market demand for them, lots contribute to land value, but they are not the only relevant land product, there are a lot of other issues. Demand is a function of a lot of things, including the size, identity and diversity of the market segments for different land products. Some factors include issues like: what is the supply of land that appeals to each market segment? How much is each segment willing to pay for the things that they want? What do development restrictions do? They change the relative supply of the land products that are available to the different market segments. These considerations might explain why land in counties with extremely restrictive zoning are still worth a lot of money and why the studies of

zoning changes in those areas seem to show little effect, because it is not just about the lot size, it is about all of these issues.

Delegate McIntosh said before we conclude today's hearing, I just have one question for the study presenters. When you talk about land values, are you talking about the appraised value or the sales value?

Dr. Elgin Perry and Dr. Lori Lynch said that they were talking about the sales value. Kenneth Bounds said that he was talking about the appraised value.

Delegate McIntosh said we are dealing with apples and oranges. When we talk about land values, there are two very distinct and important differences that we need to look at. It may be if you have a large parcel of land, it is not in fact devalued. But the issues that farmers are concerned about is the appraisal cost not the sale cost. We need to look at the appraised value of property. It is largely useless today as we know, but hopefully times will stabilize again. We need to make sure that we are talking about the same things. We are really trying to get into details in this TF. Thank you very much for your attention.